

ABSTRACT OF THE DISCLOSURE

In order to activate a catalyst in a short time in an internal combustion engine having a turbine, an exhaust bypass flow passage and an exhaust bypass valve and its valve seat provided in the 5 exhaust bypass flow passage are set to sizes large enough to be able to make almost all the amount of the exhaust gas bypass the turbine, and the exhaust bypass valve is controlled by a driving actuator using a motor or a solenoid. Rapid activation of the catalyst is implemented by totally opening the exhaust 10 bypass valve during the starting period of operation of the internal combustion engine to make almost all the amount of exhaust gas flow into the catalyst by bypassing the turbine. Since almost all the amount of exhaust gas flows into the catalyst by bypassing the turbine by totally opening the exhaust bypass valve during 15 the starting period of operation of the internal combustion engine, the activation of the catalyst is hardly retarded compared to a case where no turbine exists in the downstream side of the exhaust manifold.

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